

RES.4 *Human Exposure/Groundwater Under Control***Section 1 - Program Activity Information**

1.1 Program Activity: Human Exposure Under Control (HE) and Migration of Contaminated Ground Water Under Control (GM) Environmental Indicators

1.2 Program Activity Category: GPRA Annual Performance Measures

1.3 Program Area: Program Management

1.4 EPA Sponsor:

Subject Matter Expert	Subject Area	Phone #
Rich Norris	Environmental Indicators	(703) 603-9053

Section 2 - Problem/Decision Objective

2.1 Problem: Because the Superfund Program is often criticized for the relatively small number of sites that have been deleted from the National Priorities List, the Human Exposure and Migration of Contaminated Ground Water Under Control Environmental Indicators were developed to measure the interim progress made towards protecting human health and the environment through cleanup activities at NPL sites.

2.2 Stakeholder(s): The stakeholders affected by the Human Exposure and Migration of Contaminated Ground Water Under Control GPRA measures include the EPA Data Sponsor and the Regional RPM's. RPMs are required to review a site's HE and GM determination by October of each year, or as site conditions change. Determinations are automatically generated in the HE and GM CERCLIS survey screens based upon the survey responses entered by the RPM. It is required that the EPA Data Sponsor review and approve determinations on the "Headquarters Review" screen before they are available for GPRA reporting.

2.3 Decision-maker(s): The HE and GM indicator approach was designed to allow RPMs to make first-hand determinations based on their knowledge of current conditions at a site. These determinations must be made with reasonable certainty using all available documentation on media contamination for current land and ground water use. Documents such as RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports are typically consulted by RPMs to assist completion of the surveys.

2.4 Decision: The RPM completes the survey, and based on the survey responses, the database determines whether each indicator (HE, GM) is under control.

Section 3 - Information Needs

Name	Source	System	Table/Column
Site Id	RPM	WasteLAN	site.site_id
Environmental Indicators Survey Human Exposure Manager Approval Flag	Automatically generated when EI HQ Coordinator approves Regional HE determination on the HQ Review Screen	WasteLAN	env_ind_survey.eis_hu man_exp_mgr_aprvl_fl ag
Environmental Indicators Survey Human Exposure Step 1 Flag	RPM	WasteLAN	env_ind_survey.eis_hu man_exp_step1_flag
Environmental Indicators Survey Human Exposure Step 1 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_hu man_exp_step1_ref_do c
Environmental Indicators Survey Human Exposure Step 2 Flag	RPM	WasteLAN	env_ind_survey.eis_hu man_exp_step2_flag
Environmental Indicators Survey Human Exposure Step 2 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_hu man_exp_step2_ref_do c
Environmental Indicators Survey Human Exposure Step 3 Flag	RPM	WasteLAN	env_ind_survey.eis_hu man_exp_step3_flag
Environmental Indicators Survey Human Exposure Step 3 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_hu man_exp_step3_ref_do c
Environmental Indicators Survey Human Exposure Step 4 Flag	RPM	WasteLAN	env_ind_survey.eis_hu man_exp_step4_flag
Environmental Indicators Survey Human Exposure Step 4 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_hu man_exp_step4_ref_do c
Environmental Indicators Survey Human Exposure Results Code	Automatically Generated by CERCLIS based on RPM responses to Human Exposure Steps 1-4	WasteLAN	env_ind_survey.eis_hu man_exp_results_code

Name	Source	System	Table/Column
Environmental Indicators Survey Ground Water Manger Approval Flag	Automatically generated when EI HQ Coordinator approves Regional GM determination on the HQ Review Screen	WasteLAN	env_ind_survey.eis_gw_mgr_aprvl_flag
Environmental Indicators Survey Ground Water Step 1 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step1_flag
Environmental Indicators Survey Ground Water Step 1 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step1_ref_doc
Environmental Indicators Survey Ground Water Step 2 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step2_flag
Environmental Indicators Survey Ground Water Step 2 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step2_ref_doc
Environmental Indicators Survey Ground Water Step 3 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step3_flag
Environmental Indicators Survey Ground Water Step 3 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step3_ref_doc
Environmental Indicators Survey Ground Water Step 4 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step4_flag
Environmental Indicators Survey Ground Water Step 4 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step4_ref_doc
Environmental Indicators Survey Ground Water Step 5 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step5_flag
Environmental Indicators Survey Ground Water Step 5 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step5_ref_doc

Name	Source	System	Table/Column
Environmental Indicators Survey Ground Water Step 6 Flag	RPM	WasteLAN	env_ind_survey.eis_gw_step6_flag
Environmental Indicators Survey Ground Water Step 6 Reference Document	RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports	WasteLAN	env_ind_survey.eis_gw_step6_ref_doc
Environmental Indicators Survey Ground Water Results Code	Automatically Generated by CERCLIS based on RPM responses to Ground Water Steps 1-4	WasteLAN	env_ind_survey.eis_gw_results_code
Environmental Indicators Survey Last Regional HE Review Date	Automatically Generated by CERCLIS when RPM selects "Yes" to the pop-up "Do You Wish to Update the Last HE Regional Review Date?"	WasteLAN	env_ind_survey.eis_last_reg_he_review_date
Environmental Indicators Survey Last Regional GM Review Date	Automatically Generated by CERCLIS when RPM selects "Yes" to the pop-up "Do You Wish to Update the Last GM Regional Review Date?"	WasteLAN	env_ind_survey.eis_last_reg_gm_review_date
NPL Status		WasteLAN	SITE.rnpl_status_code in ('F','D')
Environmental Indicator Code		WasteLAN	ENVIRONMENTAL_INDICATORS.rei_code in ('HE','GM')
Environmental Indicator Control Code		WasteLAN	ENVIRONMENTAL_INDICATORS.reic_code in ('Y','N','D')
Special Initiative		WasteLAN	SITE_PROGRAM_PRIORITY_INIT.rppt_code = 'GM' or 'HM'

Section 4 - Scope/Universe

Human Exposure and Migration of Contaminated Ground Water Under Control surveys are accessible by the Regions for all Proposed, Final, and Deleted NPL sites, however only HE and GM determinations at Final and Deleted NPL sites are reviewed and approved by the HQ EI Coordinator for GPRA reporting. In addition, only sites with contaminated ground water are included in the GM universe.

Section 5 - Data Quality Requirements

5.1 Completeness: To generate a Human Exposure and Migration of Contaminated Ground Water Under Control determination, the HE and GM surveys must be completed and approved by the HQ Environmental Indicator Coordinator. The HE and GM survey consist of four and six questions respectively, each with a reference document field, where users are encouraged but not required to enter documents supporting their response to each question. Once a survey is saved as "Final", the HQ Environmental Indicators Coordinator reviews the survey status as generated by RPM survey responses. Once the status is approved by the HQ EI Coordinator the determinations are displayed in the ENVIRONMENTAL_INDICATORS table which is used for GPRA reporting.

5.2 Accuracy: The HE and GM indicator approach was designed to allow RPMs to make first-hand determinations based on their knowledge of current conditions at a site. These determinations must be made with reasonable certainty using all available documentation on media contamination for current land and ground water use. Documents such as RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close Out Reports are typically consulted by RPMs to assist completion of the surveys. In support of their response to each survey question, the RPMs are encouraged to provide the source documents in the "Reference Document" field of the surveys. Surveys can be completed and determinations approved as final however, without populating the reference document fields.

In addition, the PGMT-12 error report is designed to ensure completeness, accuracy and consistency in tracking and reporting the HE/GM indicators information. It displays the following errors by Regional Summary and Detail

- Each Final or Deleted site must prepare the online worksheet for Human Exposure Under Control
- Each Final or Deleted site must prepare the online worksheet for Migration of Contaminated Ground Water Under Control
- Each site determination in the HE Worksheet must match the HQ determination
- Each site determination in the GM Worksheet must match the HQ determination
- Each HE worksheet must show complete steps
- Each GM worksheet must show complete steps

Most accurate - Data is reported in official decision source document. There is objective evidence (documentation that a third party can examine and arrive at the same conclusion) to support the accomplishment of this measure.

5.3 Timeliness: At a minimum, Human Exposure and Migration of Contaminated Ground Water Under Control determinations are to be made or reviewed at all NPL sites by October of each year in order to be included in the SCAP pull (i.e. 5th working day). In addition, surveys should be reviewed as site conditions change. Site condition changes may be documented in RODs, ROD Amendments, Removal Action Memoranda, Pollution Reports, Close Out Reports, and Five Year Reviews. **It is good management practice to enter data regarding the event as soon as practicable after the event occurs. However, data must be entered prior to the end of the fiscal year in which the event occurs.**

5.4 Consistency: The HE and GM indicators do not rely on other data presently in CERCLIS and therefore data consistency is typically not an issue. Measures are taken however to ensure consistent guidance and definitions are readily available to the Regions. Most Consistent - National Guidance and definitions have been distributed. In addition to the PGMT-12 errors report, these measures include:

- **Guidance** - Regions have been provided a comprehensive Environmental Indicators Guidance Manual to assist in answering each step of the HE and GM surveys. In addition, a CERCLIS enhancement is underway to add a clickable icon next to each survey question. This icon will generate a pop-up box that displays the guidance for that particular survey question. Users also have access to the Environmental Indicators Module Quick Reference Guide and EI Survey Quick Reference Guide via the C3 Document Database.
- **Training** - Human Exposure and Migration of Contaminated Ground Water Under Control training has been developed and is available to all regions. A Web-based training process is currently being investigated which will allow all Regions access to a number of interactive training sessions scheduled throughout the year.
- **Case Studies** - Case studies have been developed as part of the EI training module and are intended to provide real life scenarios that RPM's can utilize to assist in the determination process.
- **Changes in Determination** - Changes in HE and GM determinations are monitored quarterly and any change from a previous positive determination of "Under Control" to either "Not Under Control", "Insufficient Data", or "Online Worksheet Saved as Draft" require a justification from the RPM. Regions and Headquarters run queries to determine if any sites that were previously under control and no longer under control (not under control, insufficient data, or have been saved as draft).

Section 6 - Information Collection and Reporting

- 6.1 Source for the information: RPM consults RI/FS reports, RODS, Action Memoranda, Pollution Reports, and Close-Out Reports to complete the HE and GM surveys.
- 6.2 User interface: Data is entered in the Regions on the Human Exposure and Groundwater Releases tabs in the EI Module of CERCLIS.
- 6.3 System transfers: Regional data is snapshot to Headquarters nightly then reverse snapshot back to the Regions. HE and GM survey data approved by the HQ EI Coordinator will appear in the ENVIRONMENTAL_INDICATORS table.
- 6.4 Internal outputs: SCAP 15, PGMT 11, 12, 13
- 6.5 Audit reports:
- 6.6 External outputs: reported annually to Congress
- 6.7 Guidance documentation:
- ▶□ Superfund Program Implementation Manual (SPIM) – OSWER Directive 9200.3-14-1G-Q
 - ▶□ Environmental Indicators Module Quick Reference Guide
 - ▶□ EI Survey Quick Reference Guide